DOCUMENT RESUME

ED 426 201 CE 077 655

AUTHOR Hill, Allison
TITLE Success Skills for Textile Workers. Workforce 2000 Partnership. Workplace Literacy Project. End-of-Project External Evaluation Report. November 1, 1994-October 31, 1997.
INSTITUTION Enterprise State Junior Coll., AL.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC. National Workplace Literacy Program.
PUB DATE 1997-09-18
NOTE 52p.
CONTRACT V198A40273
PUB TYPE Reports - Evaluative (142)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adult Basic Education; Adult Literacy; Basic Skills; Cooperative Programs; Curriculum Development; *Education Work Relationship; Fashion Industry; *Institutional Cooperation; Job Skills; *Manufacturing Industry; *On the Job Training; Outcomes of Education; Program Evaluation; School Business Relationship; Skill Development; *Workplace Literacy
IDENTIFIERS *Textile Industry

ABSTRACT

A 3-year workplace literacy project combined the resources and efforts of a junior and a technical college, literacy education providers, and businesses to implement an assessment and education program for textile workers. The program included four components: (1) reading, writing, speaking, listening, and mathematics skills; (2) creative problem-solving, critical thinking, and team work skills; (3) support services; and (4) dissemination, field testing, and transfer of the program to textile industries throughout the country. A total of 5,186 workers participated in the project. Of these, 4,490 workers participated in 17,793 hours in basic skills, and 3,056 participated in 3,170 hours in higher-order skills. An outside evaluator concluded that the project was successful and that the commitment of all partners (business and education) to the success of the project was the key to the remarkable achievements of Workforce 2000. Although hard evidence to support employee skill gains was difficult to obtain, managers reported improvements in skills and attitudes of the employees who had participated in the project. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 426 201

Enterprise State Junior College

END-OF-PROJECT EXTERNAL EVALUATION REPORT
November 1, 1994 - October 31, 1997

Success Skills for Textile Workers
Workforce 2000 Partnership

Workplace Literacy Project

Award Number: V198A40273
Program Staff: Allison Hill

as of
September 18, 1997

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

External Evaluator:

Dr. Lora P. Conrad
Conrad Consulting
P.O. Box 510
Russellville, AL 35653
phone/fax (205) 332-7664
e-mail Conrad_Consulting@compuserve.com

BEST COPY AVAILABLE

4077655

Table of Contents

I. Introduction . . . 3
A. Project Overview . . . 3
B. Prior Workplace Literacy Funding . . . 3

II. External Evaluation . . . 5
A. Selection of the External Evaluator . . . 5
B. External Evaluation Process . . . 5
C. External Evaluation Methodology . . . 6

III. Evaluation of Status of Project Objectives . . . 10
A. Background . . . 10
B. Project Status by Objective and PEM's . . . 11

IV. Impact on Participants . . . 35

V. Other Program Outcomes . . . 37
A. Impact on Business Partners . . . 37
B. Impact on Education Partners . . . 38
C. Accomplishment of Workplace Literacy Program Purposes . . . 40

VI. Program Management . . . 42
A. Project Organization . . . 42
B. Staffing . . . 42
C. Staff Development . . . 43
D. Assisting Agencies/Consultants . . . 43
E. Policies and Procedures . . . 43
F. Internal Evaluation and Information Systems . . . 44
G. Project Management Strengths . . . 44

VI. Resources . . . 44
A. Federal Funding . . . 44
B. Matching Share of Program Costs . . . 45
C. Facilities . . . 46

VII. Conclusion . . . 47
A. Evaluator's Conclusions . . . 47
B. Signature of Evaluator . . . 50

I. Introduction

A. Project Overview

The *Success Skills for Textile Workers: Workforce 2000 Partnership* combined the resources and efforts of all partners to provide a workplace literacy program for textile workers. The project partners were: Enterprise State Junior College (fiscal agent), MacArthur State Technical College, Southeast Alabama Adult Education Network, Laurens County Literacy Council, Clinton Mills (CMI), Shaw Industries, Pridecraft Enterprises, Inc., and Opp and Micolas Mills, Inc. The improvement in workplace skills was achieved by the partnership by implementing an assessment and education program consisting of four main components. The first component, the *Gateway Component*, enhanced the workers ability to read, write, speak, listen, and perform computations. The second component, the *Pathway Component*, provided needed educational experiences that, although basic to work success, go beyond traditional academic skills. The *Pathway Component* improved workers in such essential areas as creative problem-solving, critical thinking, and team work. The third component of the program, the *Bridgeway Component*, provided the necessary support services to allow workers to fully participate in program activities. The fourth component, the *Linkway Component* provided the dissemination, field testing, and transfer of the program to textile industries throughout the nation. Federal funds of $2,243,468 combined with $2,089,816 of matching funds produced a total funding of $4,333,284 for the three-year project. This was one of the largest Workplace Literacy projects ever funded under the Workplace Literacy program.

B. Prior Workplace Literacy Funding

Enterprise State Junior College had previously been funded for two Workplace Literacy Projects. This project was a direct outgrowth and expansion of the Rural Textile Workers Literacy Enhancement Project that concluded after 18 months of funding on September 30, 1994. During this project a total of 1,163 persons participated in training programs. The critical outcome of the project was the extensive job specific analyses of job skill requirements and development of instructional programs specific to the needs of the local textile industry. This previous project formed the ground work for the start-up of the new project on November 1, 1994.

II. External Evaluation

A. Selection of the External Evaluator

The external evaluation of the Enterprise State Junior College Workplace Literacy Program was conducted by Dr. Lora P. Conrad of Conrad Consulting in Russellville, Alabama. Dr. Conrad was selected as the external evaluator to conduct both the interim and end-of-year evaluations for all three project periods. The contract called for on-site in-state and out-of-state visits as well as attendance at the National Workplace Literacy conferences in Milwaukee. All out-of-state sites were visited during year two. Her selection was based on previous experience as a federal projects' evaluator, experience with workplace literacy projects, professional reputation with two-year colleges, and meeting all qualifications defined in the application for the external evaluator. A bid was conducted during year one under which she was selected as the lowest responsible bidder meeting all requirements of the evaluation. Approval for the contract was obtained from the Workplace Literacy program and grants officers. A standard Alabama post secondary contract format for independent consulting services was utilized.

B. External Evaluation Process

The annual summative evaluation was conducted as on-site visits at Enterprise State Junior College and MacArthur State Technical College. The final visit was conducted on September 17 and September 18, 1997 and served both as an end-of-year and an end-of-project visit. The annual summative evaluation analyzed and reported the status of the project in meeting project goals and

objectives, assessed the impact upon project participants, and assessed program outcomes to-date. Each interim visit assessed progress in meeting each objective and, reviewed performance evaluation measures, and the processes used for conducting the program were reviewed. At each of the site visits, the processes, outcomes and activities at the sites visited were reviewed. Each report included recommendations for process improvement and observations on the outcomes achieved.

This document presents a summative evaluation report of all outcomes of the project and observations by the evaluator. It does not detail status and outcomes by site as was done in the interim and year end reports, but focuses on total project outcomes and lessons learned. All key observations were discussed in the final interviews with Project Director Susan Steck and President Stafford Thompson.

C. External Evaluation Methodology

The Evaluation Plan was presented in the original grant application. The Evaluation Plan called for an external evaluation to complement the internal evaluation process. The external evaluation was to provide both an interim formative evaluation and an end-of-year complete, summative report based upon quantifiable data, collected by project staff using appropriate assessment instruments. This report utilizes information from all prior evaluation visits as well as information provided during the final visit to assess and describe the project outcomes.

The external evaluation design was guided by three principal questions:

1. To what extent was the project effective in achieving the funded objectives?
2. To what extent was the project effective in meeting the purposes of the Workplace Literacy Program?

3. To what extent was the project effective in having an impact on targeted participants and industries?

The external evaluator interviewed the project director, members of the project staff and key partner representatives involved in the various program activities. She also examined reports and related materials made available prior to and during the site visit, reviewed curriculum materials, both written and CD-based, examined facilities at the instructional sites and related resources strategic to accomplishing project objectives. In addition she reviewed the management procedures and processes employed by Enterprise State Junior College.

Correspondence, internal program and evaluation material, and products produced under this and prior Workplace Literacy projects were made available to the external evaluator. The evaluator reviewed and analyzed materials both on and off campus. During the project, visits were made to the following partner sites, in addition to the campus of Enterprise State Junior College:

- MacArthur State Technical College
- Shaw Industries, Andalusia, AL
- Shaw Industries, Valley Head, AL
- Shaw Industries, Lafayette, GA
- Shaw Industries, Bainbridge, GA
- Shaw Industries, Dallas, GA
- Walker Technical College
- Pridecraft Enterprises, Enterprise, AL
- Pridecraft Enterprises, Georgiana, AL
- Pridecraft Enterprises, Forsyth, GA
- CMI, Plant 2, Clinton, SC
- CMI Education Building, Clinton, SC
- CMI, Geneva, AL
- Opp & Micolas Mills,Inc.., Opp, AL

The following personnel were interviewed at one or more of the evaluation visits (personnel were not necessarily employed at the site all during the project):

1) Project Personnel

- Susan Steck, Project Director
- Sharon (McCall) Ellis, Site Coordinator
- Wanda Flowers, Curriculum Specialist
- Phillip Johnson, Site Coordinator
- Tammy Bunyan, Secretary
- Laura Douglas, Project Instructor, Pridecraft, Georgiana
- Nancy Leverette, Project Instructor, Pridecraft, Georgiana
- Amanda Wilson, Project Instructor, Pridecraft, Forsyth
- Linda Bottoms, Project Literacy Aide, Pridecraft, Forsyth
- Ann Bennett, Instructor, Pridecraft, Enterprise
- Juliet Siess, Project Instructor, Shaw-Lafayette
- Libby Holleman, Project Aide, Shaw-Lafayette
- Nita Dawson, Project Instructor, Shaw-Valley Head
- Erma Howell, Literacy Aide, Shaw-Valley-Head
- Greg Boughton, Project Instructor, Shaw - Dallas and Rome
- Lisa Richardson, Project Instructor, CMI-Clinton
- Ruth Smith, part-time Project Instructor, CMI-Clinton
- Tammy Lyle, Project Instructor, Shaw
- Joan Howell, Project Instructor, CMI-Geneva
- Alayne Beckham, Literacy Aide, CMI-Geneva
- Ann Bennett, Project Instructor, Pridecraft-Enterprise
- Christina Hall, Project Instructor, Pridecraft-Enterprise
- Angela Seals, Aide, CMI -Geneva
- Wanda Bass, Lead Project Instructor, Shaw Industries - Andalusia
- Karen Pierce, Project Instructor, Shaw Industries-Andalusia
- Dot Wyatt, Project Aide, Shaw Industries-Andalusia
- June Edgar, Project Aide, Shaw Industries-Andalusia
-

2) Education Partner Personnel

- Dr. Stafford Thompson, President, Enterprise State Junior College
- Wayne Bennett, Interim President, MacArthur Technical College
- Raymond Chisum, Former President, MacArthur Technical College
- Peggy Linton, Assistant to the President, MacArthur State Technical College
- Joan Newman, Dean of Instruction, Enterprise State Junior College
- Judy Miller, Director of Institutional Research, Enterprise State Junior College
- Judy Snyder, Supervisor, Southeast Alabama Education Network
- John Paul Campbell, Director of the Technical Division, Northeast Alabama Community College
- Jim Key, Vice President for Economic Development, Walker Technical College (GA)

- Pat Hollis, Vice President for Economic Development, North Metro Technical College (GA)
- Jo an Boehm, Executive Director, Laurens County Literacy Council (SC)
- Sharon Owens, Manager of Student & Tutor Services, Laurens County Literacy Council (SC)

3) Business Partner Personnel

- Kip Altstaetter, Pridecraft, Division HR Supervisor
- Becky Wallace, Pridecraft, Division QA Trainer
- Dianne Little, Pridecraft Plant Manager, Georgiana
- Snowdie Jones, Pridecraft, Division Training Manager
- Toni Kaminski, Human Resource Supervisor, Pridecraft-Enterprise
- Rhonda Simmons, Pridecraft, Human Resources Supervisor, Georgiana
- Terry Collins, Pridecraft Plant Manager, Forsyth
- Susan McDonald, Pridecraft, Human Resources Manager, Forsyth
- Joe Blevins, Plant Manager, Shaw Industries, Lafayette, GA
- Ron Shields, Human Resources Manager, Shaw Industries, Lafayette, GA
- Dale Pack, Safety & Training Coordinator, Shaw Industries, Lafayette, GA
- Ken McKinney, Group Director, Shaw Industries - Woolen Division, Dallas and Rome, GA
- Shela Padgett, Human Resource Director, Shaw Industries
- Don Archer, Production Supervisor/Quality Assurance, Shaw Industries, Dallas, GA
- Laverne Bennett, Color Analyst, Shaw Industries, Dallas, GA
- Karen Daniel, Education Coordinator, Shaw Industries - Carpet Division
- Reggie Mullinax, Training Coordinator, Shaw Industries - Yarn Division
- Tony Cochran, Human Resources Manager, Shaw Industries, Dallas, GA
- Jim Nolan, Department Manager, Twisting & Heat-set, Shaw Industries, Valley Head, AL
- Matt Hauke, Acting Department Manager, Spinning & Winding, Shaw Industries, Valley Head, AL
- Travis Crane, Department Manager, Blending & Carding, Shaw Industries, Valley Head, AL
- Fred Turner, Plant Manager, Shaw Industries, Yarn Division Plant 70
- Mike Jackson, Training and Safety Supervisor, Shaw Industries
- Brad Ward, Human Resources Associate, Shaw Industries
- Cenette Alday, Training Manager, Shaw-Andalusia
- Jerome Stuckey, Plant Manager, CMI- Geneva
- Gary Smith, Human Resources Manager, CMI - Clinton
- Steve Holland, Purchasing Supervisor, CMI-Geneva

- Bob Dettmar, Personnel Director, CMI-Geneva
- Jimmy Donaldson, Manager, Opp & Micolas Mills, Inc.
- Gail Trant, Human Resources Manager, Opp & Micolas Mills, Inc.

In addition to the individual interviews , the evaluator met with several classes of participants and attended Steering Committee meetings where feedback was obtained.

III. Evaluation of Status of Project Objectives

A. Background

The three-year project was initiated in November 1994 with 18 objectives to accomplish. Progress each year exceeded most objectives as was reported in the interim and/or end-of-year External Evaluation Reports.

Modifications to Objectives. During the project several minor modifications were made with approval from the program officer and from the assigned grants officer (assigned only during years one and two). At the time of initial negotiations between Enterprise State Junior College (ESJC) and US Department of Education staff prior to grant award modifications were made to Objectives 6 and 7. In both objectives the percentage of employees/participants referenced was reduced from 90% to 70%. The original project proposal anticipated that the project would begin on October 1 and all time frames for completing the objectives were set accordingly. However, the actual start date was one month later on November 1, 1994. Therefore the time frames for the objectives were adjusted to meet the delayed starting date.

During year one a request to modify Objective 17 regarding the measurement of plant productivity was submitted to NWLP staff and approved. The following modifications of objectives were approved with the awarding of funding for the second year of the project:

- The definition of the equivalent of twelve weeks of instruction referenced in Objectives 5, 6, 7 and 14 was set at twenty-four hours of instruction.
- Due to the shortened third year of grant activities, the number of learners referenced in Objectives 3, 5 and 15 was reduced to 570, 400 and 40 respectively and the number of non-participating industries who will adopt the project's methods and materials (Objective 18) was reduced to seven.
- The supervisor's rating of work maturity criterion described in Objective 7 was restricted to incumbent workers.

All changes were reviewed by the external evaluator and were considered appropriate for the project.

B. Project Status by Objective and PEM's

For each Project Objective and its associated Performance Evaluation Measures (PEMs), the project outcomes are summarized. A reference to the page in the original Workforce 2000 proposal where the objective was discussed is included along with each objective. Evaluator comments, observations, and commendations specific to an objective are addressed immediately following the status. In this end of project evaluation, outcomes have primarily been summarized and are not defined by site unless that helps in the understanding of the outcome. Company-specific data that

might be sensitive have been used only in combination with outcomes from other sites. These detailed data have been reviewed by the evaluator and are in the historic files of the project.

OBJECTIVE 1: By November, 1994, all project personnel will have been employed and given specific job descriptions. (Plan of Operation, page 45)

> *Performance Evaluation Measure - Personnel will be employed with signed employment contracts on file. Job descriptions will also be on file for each project employee. In November 1994, full-time personnel including a project director, site coordinator, secretary, and two instructors were employed. Another site coordinator was employed in December 1994; a curriculum specialist was employed in January 1994 and additional instructors and aides were employed as classes were added. Job descriptions were on file in the project director's office for all project personnel.*

In November 1994 full-time personnel including a project director, site coordinator, secretary and two instructors were employed. Another site coordinator was employed in December 1994; a curriculum specialist, in January 1995; additional instructors and aides, as classes were added. Job descriptions were on file in the project director's office for all project personnel.

OBJECTIVE 2: By April, 1995, initial DACUM panels will be completed and job literacy audits will be administered to participating workers in cooperation with industrial personnel. (Plan of Operation, page 45)

Performance Evaluation Measure - The modified DACUM process and the CASAS will be utilized as the primary assessment tools in this component although these instruments and processes may be extended to assess certain aspects of job functions. Written results of DACUM panels and literacy audits will be on file for each participating employee. A summary of identified deficiencies will also be on file. Records will indicate the results of the literacy audits as pre-tests for project activities.

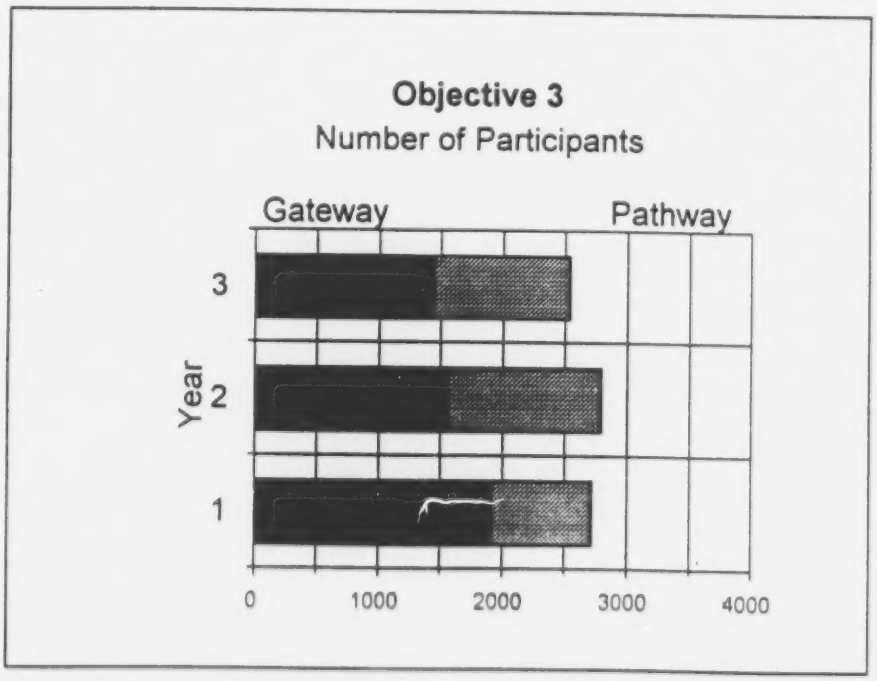
By the end of the grant, fifty-six DACUM panels and ninty-two CASAS jobs literacy audits were completed as a result of both the previous NWLP grant and the Workforce 2000 project.

Twenty-four, of the fifty-six, DACUM panels and fifty-two, of the ninety-two, CASAS Job profiles were initially conducted under the NWLP project that ended September 1994. They were reviewed and found still appropriate for use. Some were determined to be appropriate to multiple sites of the same partner thus reducing the number of panels and/or audits necessary.

OBJECTIVE 3: Beginning in January, 1995, project personnel will develop and implement ongoing outreach activities in cooperation with industry and employee representatives which will result in the recruitment, intake, screening, Individual Education Plan development, and program participation of at least 850 eligible worker applicants by November, 1995. (Plan of Operation, page 46)

> *Performance Evaluation Measure - Records will verify names of participating workers. Individual Education Plans for each worker will be on file, and attendance records will be kept for all project educational activities*

Attendance records and Individual Education Plans document that an unduplicated count of 5,186 workers participated in the project. Of these, 4,490 workers participated in instruction offered for a total of 17,793 hours in basic skills (the Gateway component) and 3,056 participated in instruction that was offered for a total of 3,170 hours in higher order skills (the Pathway component). The sample attendance records reviewed by

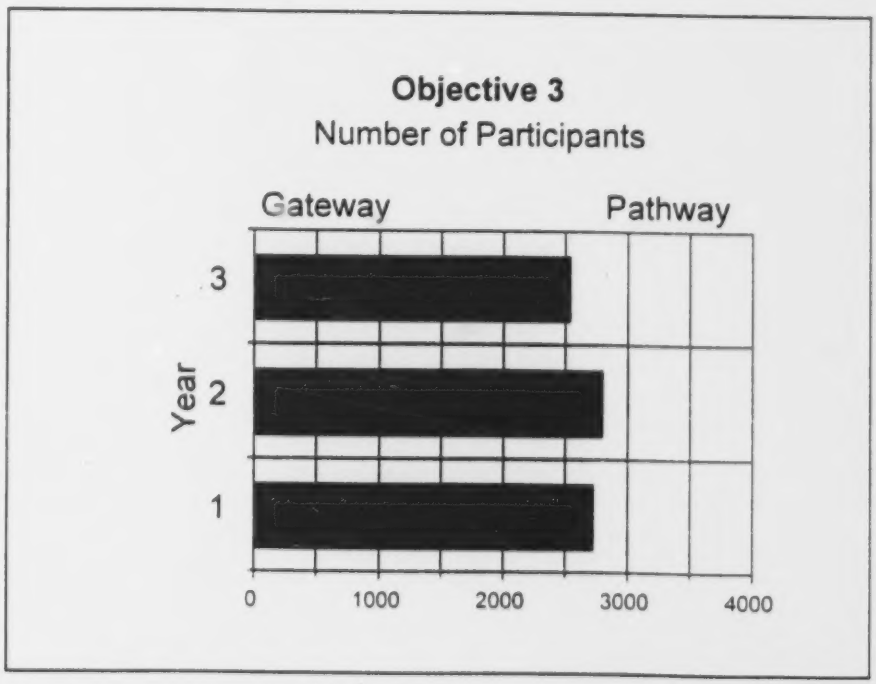


Twenty-four, of the fifty-six, DACUM panels and fifty-two, of the ninety-two, CASAS Job profiles were initially conducted under the NWLP project that ended September 1994. They were reviewed and found still appropriate for use. Some were determined to be appropriate to multiple sites of the same partner thus reducing the number of panels and/or audits necessary.

OBJECTIVE 3: Beginning in January, 1995, project personnel will develop and implement ongoing outreach activities in cooperation with industry and employee representatives which will result in the recruitment, intake, screening, Individual Education Plan development, and program participation of at least 850 eligible worker applicants by November, 1995. (Plan of Operation, page 46)

> *Performance Evaluation Measure - Records will verify names of participating workers. Individual Education Plans for each worker will be on file, and attendance records will be kept for all project educational activities*

Attendance records and Individual Education Plans document that an unduplicated count of 5,186 workers participated in the project. Of these, 4,490 workers participated in instruction offered for a total of 17,793 hours in basic skills (the Gateway component) and 3,056 participated in instruction that was offered for a total of 3,170 hours in higher order skills (the Pathway component). The sample attendance



records reviewed by the evaluator were thorough.

OBJECTIVE 4: Project personnel will develop, field test, and refine job specific instructional programs to include delivery systems, objectives, learning activities, and evaluation components. (Ongoing beginning November, 1994) (Plan of Operation, page 46)

Performance Evaluation Measure - Learning modules will be on file in workplace instructional laboratories after a documented successful field test.

A total of 30 instructional programs were developed and field tested during the project. These curricula were used in a total of 908 classes. Continuous operation programs were developed in GED preparation, English-as-a-Second-Language and adults learning to read.

Following the teaching of any curriculum developed in the project, instructors completed a *Field Test Evaluation* form. Courses were then modified as needed based upon input from the evaluation forms completed at the test sites.

The chart below is a summary of the *Curriculum Tracking Report,* which documents the courses taught at each site. The chart also compares class offerings for each project period. (Note: Some minor variation in numbers from previous evaluator's reports results from the difference in the reporting dates of the data.) During year one, much effort was expended in initial curriculum development and participant assessment. Year three was shortened to nine months as a result of funding cuts. As a result of these factors, year two had the largest number of courses offered.

Course	Number of Classes (1997)	Number of Classes (1996)	Number of Classes (1995)
Business Writing for Textile Workers	0	6	

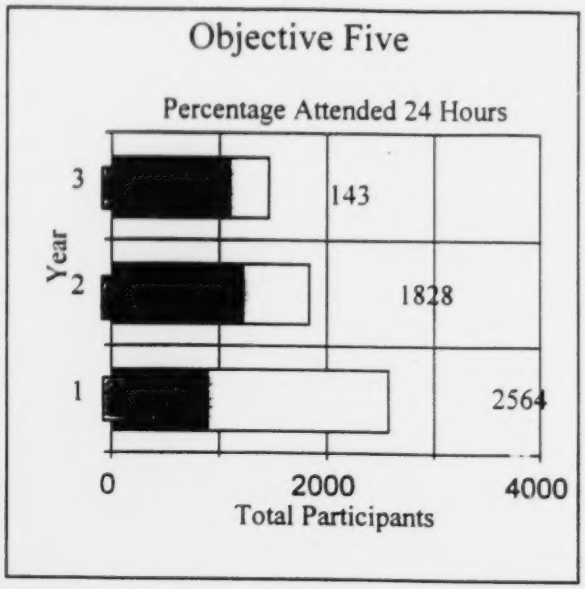
Course	Number of Classes (1997)	Number of Classes (1996)	Number of Classes (1995)
Developing an Individual Education Plan	3	4	3
Effective Training Skills	0	0	2
Interpersonal Communication	0	0	2
Introduction to Textiles for Team Building	5	5	4
Listen Up for Safety's Sake	2	2	
Machinery of Management	0	2	4
Mastering Fractions	0	0	1
Math Skills for Textile Technicians	1	17	
Math Skills for Loom Technicians	0	0	1
Math Skills for Textile Technicians II	5		
Math Skills for Weave/Cloth Room	0	0	1
Math Skills for Card/Spinning Associates	0	0	1
Mechanics of Teams	6	8	1
Monitoring Process Performance	8	3	
Monitoring Process Performance Refresher Course	3		
Patterns for Success I	18	45	34
Patterns for Success II	18	45	34
Presenting Effective Workplace Presentations	3	9	1
Reading for Quality, Commitment & Adaptability	12	4	2
Success Skills I	89	135	44

Course	Number of Classes (1997)	Number of Classes (1996)	Number of Classes (1995)
Success Skills II	89	135	44
Success Skills for a Quality Education	6	11	9
Team Building	0	1	4
Understanding GMP's	7		
Vocabulary for Quality Systems	0	0	2
Workplace Leadership Skills	0	0	1
Problem Solving	2	0	2
Workplace Writing	0	0	1
Workplace Basics for Supervisors	0	0	1
Total Courses 30	**277**	**432**	**199**
Note: Blank entry means the course was not yet developed.			

The evaluator reviewed the curriculum development process with the curriculum development specialist and the project director and also interviewed instructors regarding this process. **The methodology used for curriculum development was thorough and lead to curriculum that met high standards for completeness and professional appearance.** The content reviews by instructors and the outcomes achieved with participants document that the courses delivered appropriate content for the workforce. The evaluator reviewed the curriculum evaluation forms which clearly documented a careful review of curriculum and an effort to make the material appropriate in the unique situations at each site.

The curriculum specialist has developed skills which will be very transferrable to other curriculum development projects. She has a very practical approach to assessing needs, developing

low-cost delivery materials that work and evaluating and refining those continuously. **The high quality of the curriculum materials was evident in the samples reviewed by the evaluator.**



OBJECTIVE 5: By January, 1996, a minimum of 850 project participants will complete at least 12 weeks of instruction (or the equivalency of 24 hours of instruction). (Plan of Operation, page 46 -- revised)

Performance Evaluation Measure - Class attendance records will reflect at least 12 weeks (24 hours) attendance by at least 850 employees.

The heart of the project was instructional delivery. The project far exceeded the objective by providing at least 24 hours of quality workplace instruction to 3,107 participants. Each year the project exceeded the objective originally planned for the entire project.

OBJECTIVE 6: 70% of employees who complete 12 or more weeks (or the equivalent of 24 hours) of instruction will retain employment or be promoted. (Plan of Operation, page 46 -- revised)

Performance Evaluation Measure - Employment records of project participants will indicate continued employment and/or promotion.

Retention of participants who had completed 24 or more hours of instruction at all sites was 60%. However, this industry and the partner companies have experienced workforce reductions.

These reductions have resulted from factors beyond the project scope, including changes in ownership, plant closings and shift changes. At the end of the project 45% of all participants had been retained. This ranged by site from 35% to 100% retained. Completion of 24 hours or more of instruction significantly increased the likelihood that participants would be retained.

One of the lessons learned regarding establishing measurement criteria is that objectives need to be phrased in terms of outcomes that can be significantly affected by the training. Significant project impact on employee retention is only possible over a short time period or at a site that is very stable. Comparing the retention of non-participants with that for participants in the same assignment area of the plant would have been a better indicator of the impact of training on retention.

OBJECTIVE 7: 70% of incumbent workers who complete at least 12 weeks (or 24 hours) of instruction will show statistically significant gains in their supervisors' ratings of work maturity including their communication, literacy skills, safety procedures, cooperation, problem solving abilities, interpersonal relations, punctuality, team performance, attendance, positive attitude, appearance, and task completion. (Plan of Operation, page 46 -- revised)

> *Performance Evaluation Measure - A modified version of the CASAS Work Maturity Checklist will be used to assess supervisors' perceptions of employee characteristics outlined in the objective. It will be administered prior to and following program participation and results will be compared.*

The CASAS Work Maturity Index is appropriate only as a pre and post test vehicle for **incumbent** workers who have completed a significant amount of training. A total of 464 such workers received pre-and post-training ratings by supervisors. Seventy percent of 326 workers showed an average gain of 9.5% in their ratings.

OBJECTIVE 8: Project staff, in cooperation with industry personnel, volunteer organizations, other college personnel, and appropriate governmental agencies will provide on-going needed support services for project participants. These services shall include, but not be limited to, tutorial services, transportation services, child care services, counseling services, and referral to other services. (Plan of Operation, page 47)

Performance Evaluation Measure - Records (Request for Support Service Forms and completed IEP's) will indicate the type of service(s) provided and document the individuals receiving the services(s).

Once the project began, a realistic assessment of the support services needed at each site changed the specific types of services offered. The following services were provided. They are listed by frequency of request.

1) Released time to attend classes
2) Educational counseling
3) On site classes to prepare for the GED tests of high school equivalency or referral to off site classes
4) Information on education and training opportunities beyond the scope of the project
5) Referral to health care providers
6) Reimbursement for child care
7) Reading tutors

By offering the classes on site, often during work hours, the need for support services was kept very low for the number of workers served. Released time to attend classes was the most valuable and often used support service. This was entirely provided as partner match. Based on the evaluator's observations of this and other projects, released time for class attendance is one of the most important factors in worker participation in any workforce development project.

OBJECTIVE 9: By October of 1995, project personnel developed train-the-trainer workshops (materials and methods) necessary to successfully transfer the program to nine additional partner work sites to further field test the developed curriculum as well as the train-the-trainer and dissemination processes.

Performance Evaluation Measure - Agenda, attendance logs and evaluations for train-the-trainer workshops will be on file in the Project Director's office and the workplace literacy program will be serving at least 500 additional participants at nine additional work sites.

Five regional workplace literacy/staff development conferences were sponsored by the project. These were attended by project staff, adult education instructors, textile industry managers and supervisors, and other workplace literacy practitioners. The first was held March 15-17, 1995 titled "Developing Workplace Curriculum: Part I." This workshop focused on job task analysis, assessing workers needs and unity curriculum. This was followed on August 23, 1995 entitled "Developing Workplace Curriculum--Part II: Assessment." The objectives of the workshop were to teach participants to differentiate among the terms assessment, evaluation, testing, and measurement; to describe the role of assessment in the individual education process; to identify various methods of assessing learner outcomes; and to select appropriate assessment methods to use during curriculum development.

A third workshop was held January 18, 1996, entitled "Understanding Industry Culture." The conference taught instructors how to define industrial culture and how to examine factors that affect the industrial environment. Project staff compiled conference materials into a workbook for trainers.

A fourth workshop was held August 15, 1996, titled "Integrating Technology into the Curriculum." The objectives of the workshop were to identify the advantages of using technology in instruction; examine factors that limit the effective use of technology in instruction; identify the major types of computer-assisted instruction and the appropriate utilization of these types of computer-assisted instruction; assess personal attitudes regarding the use of computer technology;

develop a personal action plan for incorporating technology into the curriculum; and to review a peer developed technology integrated curriculum module.

The fifth workshop was held on March 20, 1997 titled "Measuring Return on Investment." The objectives of this workshop were to: perform an assessment to link workplace education and training to identified business needs; utilize tools and methods for evaluating results of workplace education and training programs; identify the value-adding components of each of the four levels of evaluation; and conduct a costs/benefits analysis to measure the return on investment training.

These workshops are an excellent way to share knowledge with other providers of services and to update knowledge in specific topics by project staff. They are an excellent facet of project information dissemination. However, in the evaluator's opinion, the train-the-trainer methodology, although valuable, is not sufficient for the preparation of staff at new sites in widely disbursed projects such as this. One-on-one delivery of information is still needed in addition to the workshops with the key individuals involved in establishing a new site.

OBJECTIVE 10: By October of 1996, curriculum materials developed in the project will be transferred to self-contained, commercial-quality packages containing participants' manuals, teachers' manuals, related print materials, related audiovisual materials and related software. These curriculum packages will be suitable for dissemination and use at other textile industry sites.

Performance Evaluation Measure - The self-contained instruction packages will be approved by the Alabama, Georgia, and South Carolina Textile Manufacturers' Associations and will be utilized in at least 15 industries in addition to the project partners as evidenced by purchase (at cost) of the materials and verification of their utilization.

Commercial-quality curriculum modules were disseminated to sixty-one educational institutions, industries, training organizations or individuals. These organizations were spread over

twenty-one states. A follow-up survey of seventeen of the organizations identified eight additional organizations using the curriculum in all or in-part for instruction of their sites.

In addition to these activities, one key activity was the development of CD-ROM based instructional material for the workplace. This was contracted with Interactive Knowledge of Charlotte, NC, who worked with the curriculum specialist and the project director. The evaluator found the material to be of excellent design, using appropriate workplace specific examples. There was a high level of control by the participant using the program. One issue of concern for the usability of the product is whether it will be easy or costly to change the content of the software in the future. If additional vocabulary words are to be added, a definition is to be revised, or a new piece of video incorporated, then a methodology to accomplish this quickly and inexpensively is needed for long term usefulness of the material. Since the product will be marketed by Interactive Knowledge, the company will need to address these issues.

An extensive field testing program was established. A total of seven additional work sites were added across four states to test the CD-ROM based software. Testing was conducted by 143 students of whom 74% completed and evaluated the software. All field sites continue to use the test version of the software while awaiting the sale of the final version.

The Project Director determined that the state Textile Manufacturer Associations do not have a formal approval process for curriculum. However, the CD-ROM software and other curricula continue to be used at textile industries that are members of the Alabama, Georgia, and/or South Carolina Textile Manufacturers' Associations. The evaluator considers this adequate evidence of their "approval" of the packages.

OBJECTIVE 11: Project personnel will implement a Dissemination Plan which will result in project activities and outcomes being disseminated throughout the nation and will allow the project to serve as a model demonstration site for textile workplace literacy programs. The plan will include the development and publication of a booklet on project goals, activities, and results which will be publicized nationally and disseminated through the project, the Alabama Textile Manufacturers' Association, the South Carolina Textile Manufacturers' Association, and the Georgia Textile Manufacturers' Association. (Plan of Operation, pages 47-48)

Performance Evaluation Measure - The Dissemination Plan will be kept in project files and monitored by the Project Director and External Evaluator for appropriate and timely implementation. The evaluation measure for the booklet will be the publication of the approved product.

An initial dissemination plan was developed to guide regional and national dissemination. Accomplished dissemination activities included:

- A quarterly newsletter was published and mailed to more than 800 members of the Alabama Textile Manufacturers' Association, the Georgia Textile Manufacturers' Association, the South Carolina Textile Manufacturers' Association, the adult education instructors in the Southeast Alabama Adult Education Network, the supervisors of all adult education systems in Alabama, NWLP project directors, and other workplace literacy practitioners. The newsletter was also inserted in the newsletter published by the Enterprise Chamber of Commerce and distributed to all of its members.
- Articles were published in area newspapers including *The Enterprise Ledger* (Enterprise, AL), the *Geneva Reaper/News Herald* (Geneva, AL), *The Dothan Eagle* (Dothan, AL), *The Mobile Press Register* (Mobile, AL), and newscasts on WTVY-TV (Dothan, AL), WZTZ radio (Elba, AL), and WKMX radio (Enterprise, AL).
- Project staff have met with the following to discuss implementing project activities at other sites:

Coordinator of Workplace Literacy for the Department of Technical and Adult Education, Georgia Department of Education
Supervisor, Macon County (Georgia) Adult Education Program
Workplace Education Specialist, Vulcan Materials, Huntsville, AL
Faculty of the Troy-Pike Regional Center for Technology, Troy, AL
Training Supervisor, Crown Crafts, Calhoun, GA
Education Committee, City of Statesboro, GA
Manager of Training, The Torrington Company, Clinton, SC
Training for Business & Industry Coordinator, Thomas Technical Institute, Thomasville, GA
Training & Safety Committee, Shaw Industries, Calhoun, GA
President, Georgia Textile Manufacturers' Association, Atlanta, GA

- An article titled "Writing Curriculum for the Workplace" has been published by the ERIC Clearinghouse for Vocational and Adult Education (ED 393978)
- Articles have been published in partner newsletters such as *Common Threads: Connecting the Associates of Standard Textile, The Pridecraft Connection* and *Eye on CMI*
- Articles have been published in the *Alabama College Association Journal*, the *Enterprise State Junior College Columns* newsletter, *Community College Week*, the Alabama Textile Manufacturer's Association newsletter *"Among Our Members,"* and newsletters published for workers at Shaw Industries' work sites
- Project staff presented information regarding project activities, methods and materials to:

The National Association for Developmental Education Conference
Adult education and workplace literacy practitioners enrolled in a graduate course at Auburn University (AL), VED 591 Teaching Disadvantaged Adults
Chamber of Commerce, Enterprise, AL
Georgia Textile Manufacturers Association, Dalton, GA
Adult Literacy and Technology Conference, Boise, ID
The NWLP Mid-point Project Conference
Workplace Learning: The Strategic Advantage Conference, Milwaukee, WI
The Alabama Conference on Workplace Education, Birmingham, AL
The League for Innovation in the Community College's Workforce 2000 Conference, Orlando, FL
Alabama State Adult Education Conference, Birmingham, AL

Future Business Leaders of America, Kinston High School, Kinston, AL
Rotary Club, Enterprise, AL
CrownCraft, Timberlake, NC and Scottsboro, AL
Faculty and Staff of Enterprise State Junior College.

The evaluator reviewed materials disseminated and attended presentations by project staff and partners. All materials were of excellent quality. Presentations were professional, informative and valuable to others interested in workforce development. Much effort and energy were expended to develop and provide excellent workplace materials--both these materials and the lessons learned in their development and testing are valuable resources for others involved in planning and delivering workforce training, whether as an education provider or as the employer. Business partners were interested in the dissemination process, actively assisted in having articles published around the state and region and assisted in presentation about the project.

In the evaluator's opinion, business partners are in the unique and valuable position of being able to present the issues and needs for workforce development before the political leaders of their respective states. These partners can serve as advocates before those persons determining state policy and funding for true workforce development that enhances the competitiveness of textile companies. Both Pridecraft and Shaw have key representatives on the ATMA State Workforce Education Taskforce. In this role, they provide input to the state's political and education leaders regarding the needs for workforce education in the textile industry.

In this role, they have made presentations before student groups, educators and management. This taskforce is helping to legitimize workforce education in the textile industry and to broaden the understanding of educators of what "literacy" means in different environments and at different times. Industry representatives are very concerned that state leadership need to develop a realistic approach

to workforce development that focuses on issues of global competition and corporate revenue. As one manager said: "Companies can not justify workplace education on the basis of nice." :

OBJECTIVE 12: Project personnel will implement a detailed formative evaluation plan to monitor implementation of project activities. Summative evaluation will be performed by an experienced, qualified external evaluator to be contracted from project funds. (Plan of Operation, page 48)

> *Performance Evaluation Measure - The detailed evaluation plan will be kept in project files and monitored by the Project Director in checklist fashion. Fulfillment of the outside evaluator's contract and publication and submission of the Summative Evaluation Report will serve as indicators of final project evaluation.*

An Evaluation Plan was approved by the Project Steering Committee in January 1995. Evaluation activities included regular staff meetings, discussions among instructors within and between industries, site Steering Committee meetings, project Steering Committee meetings and regular visits from the external evaluator. The evaluator's activities have been described earlier. **Project staff were highly responsive to suggestions from the evaluator, providing follow-up on outcomes of changes suggested. Very comprehensive information was provided to the evaluator at every visit. Detailed accurate information was retained to support all outcomes.**

OBJECTIVE 13: Ongoing workplace literacy activities will be institutionalized and continued in at least four of the industry partners' workplaces after the conclusion of USDE support. (Plan of Operation, page 48)

> *Performance Evaluation Measure - A filed description and written certification of continuing activities by industry CEOs will constitute fulfillment of the objective.*

Site coordinators reported that continuation was expected at almost all of the work sites. At the time of the external evaluation, plant management had documented the continuation of workplace education at four CMI sites and seven Shaw Industries--far more than the four projected. Managers at virtually every partner site visited by the evaluator have indicated that they plan to continue the training program **in some form** after funding has ended on Workforce 2000. The pressures of the workplace for quick productivity and fast, effective training constantly lead the businesses to try to reduce the length of training programs. Each plant will have to assess the extent to which the classes can be adjusted or if they are now as short as possible. **The evaluator recommends that business partners carefully retain records of the outcomes achieved under Workforce 2000 in participant performance as well as the duration and content of the classes achieving those outcomes for comparison to outcomes produced when changes are made.**

OBJECTIVE 14: 80% of employees who successfully complete at least 12 weeks (or 24 hours) of instruction will show significant gains in self-esteem as measured by a pre- and post-administration of the Coopersmith Inventory (or other appropriate instrument) with a sample of participants. (Plan of Operation, page 48 -- revised)

> *Performance Evaluation Measure - A pre- and post-administration of the Coopersmith Inventory (self-esteem), utilizing a randomly selected, statistically significant sample of project participants who have successfully completed at least 12 weeks (or 24 hours) of instruction will be compared to assess gains.*

A pre- and post- Coopersmith Inventory was administered to 2,532 employees who had completed at least 24 hours of instruction. Fifty-three percent of these showed an average gain of 3.4 points.

The content of many of the instructional programs in basic and higher order skills did not directly address self-esteem. To expect significant increases in self-esteem of 80% of participants tested as a result of 24 hours of instruction in mathematics, for example, is unrealistic in the opinion of the evaluator. One of the project lessons learned is that in specifying outcomes, certain assumptions are made even if unstated. This objective had assumed the 24 hours would include instruction in factors directly affecting self-esteem. Despite the small increase recorded on the Coopersmith Inventory, one of the most frequently cited improvement in employee performance after participation in Workforce 2000 training was self-esteem. This was considered one of the key outcomes by partner management. Improvements in self-esteem were assessed by the managers in behaviors such as making suggestions, asking questions and taking the initiative in a task.

OBJECTIVE 15: As a result of project participation, at least 40 employees will obtain a GED certificate. (Plan of Operation, page 48 -- revised)

> *Performance Evaluation Measure - Copies of GED certificates, scores, or official letters documenting receipt of passing scores will be on file in employees project folders and noted on IEP's.*

Forty-two employees obtained the GED certificate of high school equivalency as a result of participating in the project. In the evaluator's opinion, without this project, it is unlikely that any of these employees would have obtained a GED. Over 200 employees participated in GED preparation at all sites. Over 150 additional employees were referred to GED classes taught by other agencies. About one in seven of those studying for the GED or referred to another program completed it during the project period. Factors mitigating against completion during the project period included no

direct economic reward at most locations for completing the GED, exceedingly low literacy levels of learners who left school at a very early age that will require more than three years to overcome and/or undiagnosed learning disabilities. Data were not available to compare the project participants' completion rate with that of ABE students from the general population.

OBJECTIVE 16: As a result of project participation, employee turnover will, on the average, be reduced by at least 20%. (Plan of Operation, page 49)

Performance Evaluation Measure - Industry partners will track employee turnover rates before and after project activities and will certify results.

Partners tracked the turnover rate at all sites. Turnover varied dramatically from ten-fold reductions in one year to a doubling of turnover. Although there was an overall decrease in turnover at partner sites, turnover rates are so dramatically affected by issues beyond the scope of any training program that it is difficult to determine to what extent the project has affected turnover. The decision to close one partner site, for example, was in spite of the training. A very high percentage of those employees from the closed plant who had completed training were retained at other partner sites. The training was also useful to those who were laid-off in seeking employment at same industry employers. This was an unanticipated effect but one valuable to the individuals affected and to their next employers. **Based on conversations with management, the evaluator concludes that changes in production methods, shift schedules, and product lines have had far more impact on turnover, both positive and negative, than the training.** Another lesson learned is that turnover rates are a useful measure of the impact of training only in situations where the business has had stable operations and management over the period of time that turnover is studied.

OBJECTIVE 17: As a result of project participation, selected plant productivity measures will show improvement as evaluated by appropriate qualitative and quantitative methods. (Plan of Operation, page 49 -- revised)

> *Performance Evaluation Measure - Industry partners will select and track productivity measures before and after project activities and the External Evaluation will certify results in the Final Evaluation Report.*

Partner management universally believed that the training program had improved workforce productivity based on their own observations of employees before and after participation in the program and the impact on new hires. Quantitative outcomes were more difficult to evaluate. Each industry specified those factors they believed could be impacted by training and that were the most important to them in terms of productivity increases. However, training impact can not be isolated except where other factors are relatively stable. As a result, in looking at the data, one needs to look at all the reasons behind the increase or decrease in the measure. The reasons include the Workforce 2000 training, changes in manufacturing methods, changes in management, changes in demand for the product, changes in manufacturing style, and changes in shifts.

Partner 1 (all sites): Remove work environment barriers to team-based manufacturing.

The evaluator's observation is that although this parameter is very important to the company as a result of their goal to shift to team based manufacturing, quantitative measures were not defined. A consulting firm assessed the organizational climate and defined ten areas that served as barriers to team based manufacturing. These topics were incorporated into training provided to both line workers and first line supervisors by project staff. Anecdotal evidence of improved capability for

team-based manufacturing from managers and floor supervisors has been the major documentation of outcome here. For example the plant manager at one site reported that:

- Some supervisors have shifted to becoming coaches and are utilizing varied teaching methods.
- Associates (line employees) are now talking and working together more to solve problems
- Greater appreciation is shown for other departments' associates and functions
- Associates understand better how attitude, work record, and educational level affect promotion
- More associates are comfortable asking business-related questions of management
- Associates who attend classes, study, and learn together tend to bond in a teamwork environment
- Associates are asking for classes, enjoying learning, and feeling better about themselves and their job

The project final report includes anecdotal evidence from other managers.

At four sites, consultants determined that basic skills of employees had to be upgraded before team based manufacturing could take place. Test scores reflected that increases in basic skills were made by associates who participated in project classes. Workforce 2000 instructors reported that several workers in the *Math Skills for Textile Technicians* classes achieved promotional opportunities and others facing displacement due to a plant closing reported excellent outcomes in seeking new

employment. Several workers reported increased confidence in using math on the job. Seventeen earned the GED and many more increased basic skills, self-esteem and communications skills.

Partner 2 (all sites): Improve schedule attainment rate.

The division schedule attainment rate for all three plants of Partner 2 at the beginning of the project was 93%. By the end of the project these rates had fallen to 92.5%, 81% and 74.1% respectively [The two lowest schedule attainment plants are scheduled to close soon.]

The evaluator's observations are that: a) skills to support schedule attainment directly were not directly addressed in the curricula nor was information to develop such curricula provided by the industry and b) schedule attainment is highly influenced by number of orders and the opening and/or closing of manufacturing lines. These later factors are so overwhelmingly the major impact on meeting schedules that improved schedule attainment is not likely to be a usable measure for the impact of a training program, although it is a valuable measure for company management.

Discussion at one of the project Steering Committee meetings resulted in the identification of safety related measures such as reduction in accidents and reduction in lost work time accidents as more directly related to the curriculum used in the Workforce 2000 project as well as having a significant impact upon the company and employees. The HR Manager reported mid-year that reduction in accidents and time away from work had already equaled the production of 100,000 pieces per year.

Another key area where productivity increases can be measured is in the speed at which employees achieve industry production levels. The combined efforts of Workforce 2000 and the in-house drill program for on-the-job training had a significant impact on the speed with which new

employees achieved their production targets. Sample data provided to the evaluator showed that during training before the implementation of both new training programs, only 5 out of 17 employees trained in two different groups achieved the expected efficiency within the week reviewed, whereas, under the new system 9 out of 10 achieved or exceeded the expected efficiency in two sample weeks of data.

Partner 3 - Site specific measures as shown below.

Five of seven sites specified a lower incident rate as a key measure. Two sites also specified lower waste and increased efficiency. Two additional sites specified an increase in pounds/person (weaving production) as the key measure. All plants monitoring the incident rate reported a significant reduction in incidents. One plant saw a decrease from 16.73 to only 9.71 [U.S. Bureau of Labor Statistics definition]. In the evaluator's opinion, the incident rate is an effective productivity measure that can show where training is having a significant impact. This is an area where specific curriculum was designed and used to address the problem. The dramatic reductions speak for themselves. These results were produced by a combination of the Workforce 2000 training and the effective leadership of the Partner using the "People Power" process of continuous improvement. The relationship of the Workforce 2000 project to this internal effort is highly synergistic. The employer had already developed an open, supportive environment where there was considerable employee trust. This environment enables the employees to achieve maximum benefits from the training opportunities provided by Workforce 2000.

Waste reduction and efficiency proved to be inconsistent measures with little or no observable impact from training. Instead increased waste and decreased efficiency resulted at one plant and reduced waste and increased efficiency at another.

Likewise increased pounds per person, while an excellent management tool, is not a factor primarily influenced by training.

OBJECTIVE 18: Following conclusion of the project period at least seven additional non-participating textile industries will adopt the methods and materials developed in the project to address their workplace literacy improvement needs. (Plan of Operation, page 49 -- revised)

Performance Evaluation Measure - A written certification by the industry CEOs will be on file in the Project Director's office within six months of project completion.

A total of eight non-partner industries, four textile and four non-textile, adopted curricula materials during the project and continued to use them after the project concluded (See Objective 10).

The Arrow Company (textile industry) in Enterprise, Alabama, the Torrington Company (bearings manufacturer) in Clinton, South Carolina and the W.R. Grace Company (micro nutrient manufacturer) in Clinton, South Carolina adopted methods and materials developed in this project. The evaluator visited the Torrington Company site in Clinton and discussed the use of methodologies developed as part of the Workforce 2000 project. They were particulary interested in and were adopting the assessment and counseling component as the tools for planning their training program. In addition, the Human Resources Manager of Mannington Industries in Calhoun, Georgia, visited the Shaw Industries plant at Lafayette, Georgia, to observe the workplace literacy program and determine how to duplicate the program.

Clearly the excellent methodologies and curricula developed under this project are adaptable to a variety of industries.

IV. Impact on Participants

A summary of the number of participants served by partner sites as of August 28, 1997 is given in the exhibit below. This is followed by a summary of participant impact indicators.

Number of Employees Served by Partner Site	
Partner	**Total Number Served**
Shaw Andalusia (AL)	1436
Shaw Valley Head (AL)	326
Shaw Dallas (GA)	201
Shaw Lafayette (GA)	198
Shaw Bainbridge (GA)	630
Shaw Rome (GA)	19
Shaw Stevenson (AL)	95
Pridecraft Enterprise (AL)	367
Pridecraft Georgiana (AL)	175
Pridecraft Forsyth (AL)	205
CMI Lydia Plant, Clinton (SC)	406
CMI, Geneva (AL)	316
CMI Bailey Plant, Clinton (SC)	250
CMI Plant 1, Clinton (SC)	117
CMI Plant 2, Clinton (SC)	365
Opp & Micolas Mills, Opp (AL)	36
Unemployed/Not Partner	44
TOTALS	**5,186**

Participant Outcomes	
Participant Outcome	**Total Project Period**
Total Number Served	5,186
Number of Learners in Basic Skills	4,467
Number of Learners in Higher Order	3,056
Outcomes	
Number tested higher on TABE	187
mean gain	0.8
Number tested higher on Competency Based Curriculum	2,137
mean gain	14.5
Number tested higher on Basic Skills	5,351
mean gain	20.0
Number tested higher on Higher Order Skills	4,521
mean gain	22.6
Number increased self-esteem	1,334
mean gain	3.4
Number improved job performance	326
mean gain	9.5
Passed GED	42
Weeks of Attendance	
0 - 6	1,701
7 - 11	378
12 + (= 24 hrs)	3,107 (60%)

Evaluator observations regarding participant impact include:

★ The project served over 5 times the number of participants originally projected.

★ Fully 75% of trainees were new hires or had less than 5 years with the company.

★ Sixty-seven percent of participants had a high school diploma or GED. (This indicates a workforce better educated than the overall adult population of the area.)

★ A total of 3,107 or 60% of participants completed 24 or more hours of training. More than three times the projected total number to be served by the project received 24 hours or more of training.

★The major impacts on participants were not necessarily those measured in the classroom. Changes in attitudes toward their employer, changes in attitude toward learning, better acceptance of change, demonstration of additional initiative, improved ability to communicate with peers and supervisors were among the most significant impacts according to both supervisors and participants at all partners. These factors were evident but difficult to quantify.

V. Other Program Outcomes

A. Impact on Business Partners

Impact upon each business partner has been addressed individually under Objective 17 above. Anecdotal reports from partner management at all sites visited indicated their satisfaction with the project outcomes. Although the impact upon the partners is much more difficult to quantify than the impact upon individual participants, most identified one or more measurable factors affected positively by the training. Most identified attitude changes--better morale, improved understanding, more confidence in management, demonstration of more initiative as the key outcomes that will affect the company.

Partners will achieve long-term direct impact from the project as they adopt the training methodology and materials for continuation after project conclusion. This project gave them the opportunity to assess what does and does not work in training at their sites given their unique circumstances. The commitment made by almost all sites to continue some elements of the programming without federal funds assistance is a strong indication of the value they found in the project. They will continue to adapt the curriculum to identify the elements that yield the best results for the least amount of time off the line. This will continue to be the priority. Since the curriculum is modular and well designed, it can be adapted readily, within the limits of preparation of the employee.

In the evaluator's opinion, based on input from business partner management, other long-term impacts include the following:

- better understanding of management of the need for workforce development
- better relationships with their education providers, and
- business partners have become involved in state and university activities on workforce education. As a result, they will take some of the lessons learned from this project and infuse them into state level policies regarding workforce development.

B. Impact on Education Partners

Education partners reported that the project had impacted them in several ways that included the following:

- the experience gained in the project has improved their ability to teach in a workplace environment
- the relationship with local industry partners has been improved with the education partner developing a better understanding of the needs and demands placed upon the business partners
- education partners have realized their own limitations in understanding of the business environment and are attempting to increase their dialog with and understanding of the businesses
- out of these experiences, the credibility of the education partners with business has improved
- college partners have built upon the interest in further education that has been developed and are now offering on-site college credit classes at some business partner sites
- some of the workplace curriculum modules have been adapted for use in college classes in the business division at one of the partner colleges
- the curriculum development process is being adapted to a college curriculum development project at one of the partner colleges
- one education partner has developed a curriculum in their business division entitled Manufacturing Specialist Certificate that is an outgrowth of this project
- the project increased the visibility of the education partners in their community and before a wider audience than before the project

- the partnership has built a stronger, collaborative relationship among the education partners and has helped the partners to understand how to make such efforts work despite state boundaries and institutional competitiveness in other arenas and
- individual project personnel have developed skills and expertise that will be assist them in future career opportunities at their current or new employers.

C. Accomplishment of Workplace Literacy Program Purposes

The project made major contributions toward the accomplishment of workplace literacy program purposes. Each workplace literacy program purpose is stated below, followed by applicable outcomes:

(1) Serve adults who do not have adequate basic skills

Out of the 5,186 adults served, a total of 4,467 did not have adequate basic skills and were provided instruction in basic skills. A total of 17,793 teacher hours of instruction were provided in basic skills.

(2) Improve workplace productivity through improvement of literacy skills

Anecdotal reports from company personnel at all partner sites indicated that they believe strongly that the workplace literacy training had a positive impact on productivity and other measures. (Discussed in more detail under objective 17 above.)

(3) Provide GED services

GED services were provided in cooperation with the area ABE program at Enterprise State Junior College and in cooperation with the Adult Education partner in other states. This was particularly a focus at two sites where independent consultants had

identified the need for basic skills as critical to the future of these plants. Over 200 received GED instruction; a total of 42 participants obtained a GED. In addition, 14 learners received 450 hours of instruction in English as a second language.

(4) *Provide educational counseling and other services*

All 5,186 participants receive educational counseling prior to enrollment in classes. A variety of other services were provided, primarily by the partners as match as presented under objective 8. The increased requests fro information about further education that occurred as the project progressed indicated that participants were developing a desire to earn and were planing for further education in some cases.

(5) *Update basic skills in accordance with workplace requirements, technology, products or processes.*

A total of 5,351 participants (some duplication of headcount) scored higher on the basic skills post tests with a mean gain of 20 points. Basic skills instruction was based upon workplace requirements as established through DACUM panels and job literacy audits.

(6) *Improve the competency of adult workers in speaking listening, reasoning, and problem solving.*

Courses offered in Higher Order Skills have included problem solving, reasoning, speaking and listening skills as shown in the course list under Objective 4. Pre and post test results showed significant gains in these areas. A total of 3,056 participants received instruction specifically in higher order skills; however, 4,521 participants in

all types of instruction scored higher on higher order skills with a mean gain of 22.6 points.

VI. Program Management

A. Project Organization

The Workplace Literacy Project Director reported to the Dean of Instruction who reported directly to the President of Enterprise State Junior College. The project was under advisory oversite by the Workforce 2000 Steering Committee whose membership included project staff and representatives from each partner and participating industry. **The Steering Committee meetings were productive both in operation of the Workforce 2000 project and in enhancing communications among members of the industry**.

B. Staffing

Job descriptions for key personnel employed full or part-time under the Workplace Literacy Project were developed by Enterprise State Junior College and were on file in the Workplace Literacy office. Plant personnel and educational partner personnel were all lavish in their praise for Workforce 2000 project staff at all sites. **All instructors received accolades for their cooperative approach, their ability to communicate well with employees on the floor, and their ability to work with plant management.** One of the lessons learned from the project is that the success of a multi-site project rests in the hands of the on-site instructor and aide at each location. Their attitude and ability are critical.

The site coordinators had a particularly challenging job in maintaining communications and trouble-shooting so many sites over such a distance. Both site coordinators developed an excellent rapport with staff at the business sites and worked well with the education delivery partners. The site

coordinator's position requires constant balancing of competing needs from the triad of groups involved in each site. The difficult and key role played by the site coordinators is another lesson learned regarding staff roles on the project.

C. Staff Development

Staff development was a priority concern for the Project Director. Staff development concerning the philosophy of workplace literacy, the goals and objectives of the project and the use of technology was accomplished. In addition, staff development included the train-the-trainer workshops described under Objective 9.

D. Assisting Agencies/Consultants

A commercial instructional materials development company was identified to provide quality curriculum packaging. The company chosen was Interactive Knowledge, Inc. The contract was approved both by NWLP staff and college staff. Refer to Objective 10 above.

E. Policies and Procedures

Enterprise State Junior College is part of the Alabama system of two-year colleges. As such, it must comply with Alabama Department of Postsecondary Education policies and procedures concerning employment, obligation and expenditure of funds, and operational policies. Project records were maintained in the office of the Project Director concerning performance of grant objectives. All fiscal documentation records for audit were maintained by the business office at Enterprise State Junior College. All grant records are audited by state auditors along with the state audit of institutional accounts as soon as possible after the end of each fiscal year. This process is used state wide. There have been no problems in grant management nor in audits at Enterprise State Junior College. The key to financial management success with this multi-site and multi-state project

was the close scrutiny of the Project Director and the adherence to careful, well-planned procedures for financial management.

F. Internal Evaluation and Information Systems

During year one the Steering Committee formally adopted the evaluation methodology which was included in the evaluation plan for the project. Internal evaluation was based upon quarterly internal reporting and review along with a computer-based record-keeping system. The project retained up-to-date and reliable information despite the problems with the data reporting system (NWLIS) mandated for use by the NWLP office during a part of the project. Procedures were in-place for thorough documentation of everything from participant records and outcomes to curriculum development process and the curriculum product themselves. **The evaluator's observation is that the project documentation retained was exceedingly thorough and accurate.**

G. Project Management Strengths

The single greatest project management strength was the capability of the Project Director. She strengthened further her already excellent management skills by operating a project sweeping in scope, with many challenges in corporate cultures, personnel and logistics. Her knowledge regarding the planning and implementation of worksite based training in many different circumstances is excellent. In the evaluator's opinion, she is prepared to contribute effectively as a project manager in any college or business environment.

VI. Resources

A. Federal Funding

Detailed project expenditures have been reported by the project to the NWLP office at each year end. Funds were expended as budgeted, with some carryover approved for both year one and year two. Since NWLP funding was reduced during the third year, the project funding level was reduced to funding for nine months. This impacted the number of courses offered at all sites during year three since the project had to be completed three months earlier than originally planned.

Total federal expenditures for the project by year were:

- year one $686,872
- year two $976,699 and
- year three $579,897.

B. Matching Share of Program Costs

The project was required to provide a match of 30% of total project costs. A total match of **$2,089,816** which is over **48%** of a total project of **$4,333,284** was provided. The Project Director obtained regular documentation of the match provided by all partners. All partners are to be commended for their project match. The project staff have retained excellent records of the cost sharing/matching in-kind documentation provided. The exhibit below documents the total project match for November 1, 1994 - August 31, 1997.

PARTNER	EMPLOYEES	VOLUNTEERS	SUPPLIES	BUILDING SPACE	TOTAL
Site A	$54,246	$450	$904	$61,000	$116,600
Site B	$155,585	$0	$200	$23,175	$178,960
TOTAL Business Partner One	$209,830	$450	$1,104	$84,175	$295,560
TOTAL Education Partner One	$43,339	$0	$94	$0	$43,433

TOTAL Education Partner Two	$42,636	$982,981	$103,479	$6,555	$1,135,651
TOTAL Education Partner Three	$23,349	$0	$1,467	$6,421	$31,237
TOTAL Business Partner Four*	$1,425	$0	$0	$610	$2,035
Site C	$91,526	$0	$4,349	$29,686	$125,561
Site D	$43,271	$0	$3,263	$46,693	$93,227
Site E	$40,954	$0	$2,446	$54,612	$98,012
TOTAL Business Partner Two	$175,751	$0	$10,058	$130,991	$316,800
TOTAL Education Partner Four	$42,449	$9,584	$1,712	$0	$53,745
Site F	$564,079	$0	$19,467	$130,564	$714,110
Site G	$194,419	$0	$1,723	$94,101	$290,243
Site H	$71,410	$0	$2,204	$50,900	$124,514
Site I	$68,511	$0	$4,509	$12,763	$85,783
Site J	$2,203	$0	$28	$2,075	$4,306
Site K	$22,076	$0	$309	$30,190	$52,575
Site L	$2,068	$0	$2,488	$1,823	$6,379
TOTAL Business Partner Three	$924,766	$0	$30,728	$322,416	$1,277,910
GRAND TOTAL	**$1,463,545**	**$20,133**	**$54,969**	**$551,168**	**$2,089,816**

*This business partner was inactive during years two and three.

C. Facilities

Facilities for the project were provided by each college partner and each industry partner. Enterprise State Junior College provided the project management office, business office support, and information system support. MacArthur State Technical College provided the office for the site

coordinator and a staff person. The valuation of the facilities is shown above in the match contributed. Facilities on-site, conducive to learning are major contributors to successful project outcomes.

VII. Conclusions

A. Evaluator's Conclusions

The commitment of all partners--business and education--to the success of this project was the key to the remarkable achievements of Workforce 2000.

The cooperation of leadership and staff at MacArthur Technical College and Enterprise State Junior College was admirable. In an environment often marked by destructive competitiveness among institutions, it is laudatory that two institutions that typically compete for market share cooperated in a major project.

The business partners represented many different management philosophies and levels of commitment to workforce development within the textile industry. Those plants that were the most productive and the most stable in terms of management and business opportunities were also those that gave the most support from top management for the workplace literacy program. In turn, they achieved the greatest gains. Clearly, on-site visits and data show that the best results were achieved in those environments where management had set the stage by developing an open environment with obvious value on training.

All business partners made a major commitment of resources and the time of their own personnel to workforce development. Support for the program and confidence in the outcomes were clear when interviews were held with management personnel. Plant managers recognized that though

some outcomes are measurable (such as skills improvement), many intangible improvements such as changes in attitude toward learning and changes in attitude toward managers and peers lead to positive outcomes on the plant floor. The combination of measurable outcomes and personal observation by top management translated into commitments to continue training activities after the grant ended at almost all partner sites.

The education partners, in addition to MacArthur State Technical College and Enterprise State Junior College, have participated in a learning experience regarding how to collaborate effectively in the training for business environment. The lessons learned in working together locally, across state boundaries, and across distances of over 600 miles are already leading to a commitment to try such collaboration again with the same or with other partners. It has also increased their resolve to serve area businesses in collaborative activities when these activities will produce the most effective results for business clients. In the evaluator's opinion, this is a new direction for most educational institutions who have been primarily single source, independent service providers in the past.

Often both business managers and educators have difficulty identifying productivity factors that can be effectively impacted over a short period of time by training. Since every work environment has many factors that change with time and some are dramatic such as closing the plant, retooling, new fabrics, new management styles, different shifts, it is impractical to look at the impact of training as an isolated factor over a multi-year period. Training can only be considered as a piece of a broader package or looked at intensively over a short period of time. For example, throughout the industry, waste reduction and accident reduction seem to be areas where training has an immediate and measurable impact.

Education providers are urged to look carefully at the processes and products developed not only at their own site but all across Workforce 2000. These approaches and materials may be of value in developing services for provision to local industry now that the Workforce 2000 project is completed. The education providers had a perfect opportunity to develop a methodology for workforce development that can be applied to several industries. This is clearly documented by the interest and adoption by several other industries of the methodologies and materials developed.

Education providers should quickly see the parallels in the Workforce 2000 project and those programs needed as welfare reform begins to be implemented and training is offered as part of the transition. The provision of practical training at the worksite to enhance workforce productivity is experience that can be a valuable asset in the welfare to work training environment. Educators should be able to combine their expertise and the methodologies learned under this project to develop an improved method of meeting business training needs in their own communities.

The evaluator noted that curriculum materials developed should be an asset for others in both the textile and other industries. Procedures to continue dissemination are in place at Enterprise State Junior College. Reasonable fees for processing such requests will have to be charged. Such valuable materials should not be lost because the project has finished.

Industry partners will continue to adapt the curriculum and processes as they must seek ever more effective means of preparing their workforce for their current positions and for future changes in their industry.

Industry partners are urged to continue their activism at the state and national level to impact state and national policies on workforce development and on policies that might lead to a more globally competitive textile industry in America.

It is the opinion of the evaluator that this was a highly effective project which met or exceeded all expectations and continues to impact all partners in ways that go far beyond the direct and expected project impact.

B. Signature of Evaluator

Lora P Conrad 11-13-97

Lora P. Conrad, Conrad Consulting Date

End of Project External Evaluation Report 1994-97
Enterprise State Junior College
Workplace Literacy Program
Award Number: V198A40273